IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:
Charles Edward Bowers

Docket: 30-4397 DIV-2

Serial Number: 10/631,320

Group Art Unit: 1733

Filed: July 31, 2003

Examiner: Sam Chuan C. Yao

For: UNTWISTED WRAPPED SINGLES YARNS AND CARPETS MANUFACTURED THEREFROM

FAX COVER SHEET

TO: Commissioner for Patents
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GROUP : 1733

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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REPLY BRIEF FOR APPELLANT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer mailed April 7, 2006 please consider the following remarks.

1) Appellant acknowledges the Examiner's withdrawal of the rejection of claim 29 under 35 U.S.C. 102(b) in view of WO 99/14408. Arguments against this rejection are no longer necessary in this appeal.

2) The Examiner restates his rejection of claims 29-38 under 35 U.S.C. 103 over JP 02300340 in view of WO 99/14408. Appellant submits that this rejection is incorrect, since it would not have been obvious for one skilled in the art to combine the teachings of these references in an effort to devise the present invention.

In the Examiner's Answer, he agrees that JP '340 *fails* to teach the forming of a wrapper yarn comprising a blend of *heat-activated* binder fibers and base synthetic fibers, wherein the melting point of the binder fibers is at least 20°C lower than the melting point of the base fibers. In an attempt to fill this void, the Examiner relies on WO '408 for disclosing the wrapping of fibers with a heat-activated binder yarn. However, Appellants urge that JP '340 and WO '408 teach completely different yarn structures, and different processes for forming their yarns. JP '340 relates to a multi-ply yarn including a sliver 1 and a filament 2 that are "aligned in parallel without twisting", to form a conjugate yarn which is incorporated into a carpet backing in the form of loops. The stated advantage of this invention is that an improved feel is provided *since the sliver is not twisted.* Such is clearly shown in both the figures and text of JP '340. In contrast, WO '408 teaches the direct opposite of JP '340. The WO '408 reference relates to twist set yarns, and a process for forming such twist set yarns with heat-activated binders. While the Examiner only cites this reference for disclosing a heat-activated binder, it is clear that the melting of this binder is done *during a twist-setting process*. WO '408's disclosed twist-setting process directly *teaches away* from both JP'340 and the present invention. Furthermore, this reference makes no disclosure of a process which includes melting the heat-activated binder around an untwisted yarn. Thus, it is urged that one skilled in the art would not have been motivated to combine the heat-activated binders of WO '408, which binders are only taught as being melted during twist-setting processes, with the untwisted yarns of the JP '340 reference which teaches against any form of twisting.

The Examiner further agrees that JP '340 fails to teach the heat-setting of a wrapped yarn formed according to the present invention, and the dyeing and finishing of a resultant carpet. In the Examiner's Answer, he asserts that such steps are known in the art and should therefore be considered obvious. He further states that certain limitations of the present claims are obvious due to WO '408's general mention that "ideal properties" of

the final product should be achieved. However, it is urged that since the presently claimed process *as a whole* has not heretofore been known, this process should not be considered obvious for including certain individual features which may be separately used in other processes.

3) The Examiner additionally restates his rejection of claims 29-48 under 35 U.S.C. 103 over WO 99/14408 in view of JP 02300340. In the Examiner's Answer, he again points to page 3, lines 10-31 and claims 1, 14 and 15 to assert that a twist is not discussed at these portions of the patent. It is urged that the Examiner's assertion is insufficient to form a prima facie case of obviousness. The Examiner cannot merely look at the absence of a statement in the reference and then attempt to fill that absence with arguments that the present invention could theoretically fit there. Nowhere does WO '408 *actually teach* the use of an untwisted yarn. In fact, a word search of WO '408 shows that this reference fails to even mention or imply any use of untwisted yarn. Rather, throughout WO '408's disclosure it is repeatedly taught that their yarn is *twist set* under high temperatures in order to retain good properties *after being subjected to common high temperature twist setting procedures*. The Board is directed to page 4, lines 11-21 of WO '408 which discusses the utility of the reference for such twist setting procedures, whereby the use of a heat-activated binder having a lower melting point compared to a base fiber offers an improved response to twist setting, resulting in improved properties. The Board is further directed to page 6, lines 1-20, which describes the twist setting conditions, e.g. the Suessen twist setting process, which WO '408 employs. Appellants urge that, upon a reading of WO '408, one skilled in the art would not have been inspired to practice the teachings of this reference without employing such a twist setting procedure.

In the Examiner's answer, he again states that it would have been obvious to incorporate the heat-treated yarns of WO '408 into a carpet primary backing as loops, stating that such loops are taught in JP '340. Appellants again assert that there is nothing in the cited art which shows that using the yarns of WO '408 would or could be successful in this context. Again, WO '408 relates to *twisted* heat-treated yarns. JP '340 relates to

untwisted yarns, and does not disclose any heat treatment of a heat activated binder. Thus, the Examiner has no basis for his reliance on JP '340 in teaching that the yarns of WO '408 would be suitable as loops in a carpet primary backing.

Again, in the Examiner's answer he asserts that certain limitations of the present claims are obvious due to WO '408's general statement that "ideal properties" of the final product should be achieved. Again, Appellants urge that the presently claimed process *as a whole* has not heretofore been known, and that this process should not be considered obvious for including certain individual features which may be separately used in other processes.

4) Regarding paragraph 10 or the Examiner's Answer, it is agreed that Appellants' previous arguments relating to the 35 U.S.C. 102 rejection of claim 29 are now moot in view of his withdrawal of the rejection. However, Appellants disagree with the Examiner's remaining remarks of paragraph 10. First, the Examiner states that the present issue is whether or not it would have been obvious in the art to use a yarn of WO '408 for making carpets. However, in his statement, the Examiner implies that a blended wrapped yarn of WO '408 for use in making carpets would be an *untwisted yarn*. Appellants strongly disagree. As stated above, WO '408's entire disclosure relates to twisted yarns, that is, yarns which are wrapped with heat-activated binders which melt during *twist setting process conditions*. Nothing in their disclosure states or implies *any* use of untwisted yarns in their process. Thus, while it may be old in the art to form a carpet using the yarns of WO '408 it would *not* be obvious to form untwisted yarns, or carpets including untwisted yarns, in view of WO '408. Thus, it is urged that one skilled in the art would not have been inspired to consider WO '408 in an effort to formulate the presently claimed invention.

Appellants also disagree with the Examiner's statement that there is a strong resemblance/similarity between the wrapped yarn structure of JP '340 and the blended wrapped yarn of WO '408. The Examiner asserts that the only difference between the

yarns of WO '408 and JP '340 is that JP '340 does not include a heat-activated binder. Appellants respectfully urge that this is not the case. As stated above, WO '408 relates to twist set yarns, and a process for forming such yarns with heat-activated binders, wherein the binders melt *during twist setting process conditions*. JP '340 relates to a multi-ply yarn including a sliver 1 and a filament 2 that are "aligned in parallel *without twisting*", to form a conjugate yarn which is incorporated into a carpet backing in the form of loops. Appellants. It is urged that these references are non-analogous, and would not have been combined in an effort to formulate the presently claimed invention. In addition, it is urged that while JP '340 does teach the formation of carpets without twisted yarns, one skilled in the art *would not* have expected such an untwisted yarn carpet to be formed using the teachings of WO '408.

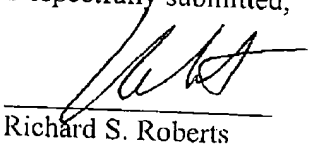
In short: WO '408 specifically requires twist set yarns and nowhere contemplates untwisted yarns. JP '340 teaches untwisted yarns for use in their particular context, but nowhere mentions the use of heat activated binder fibers nor a heat setting step.

Neither reference even mentions the use of their fiber structure as useful for the production of a Saxony carpet which is required by the instant claims. See page 4 of the main Brief on Appeal for a discussion of the characteristics of a Saxony carpet.

This is a clear instance where the examiner is impermissibly reconstructing the art in light of the Applicant's disclosure, and even when so hypothetically done, still does not produce the invention. The examiner has chosen the path of picking and choosing elements of two prior art references and asserting that the differences are well known in the art, even though such differences are not reconciled by the record. This is not the proper analysis to form a rejection under 35 U.S.C. 103. This Reply Brief was necessitated by the additional arguments set forth by the examiner in his Examiner's Answer and in addition, because the USPTO has only now provided the Applicant with a full translated version of JP '340 for analysis and argument.

For the foregoing reasons, Appellants respectfully submit that the above stated rejections should be overruled.

Respectfully submitted,



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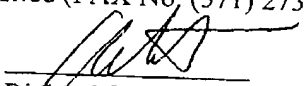

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